

CLAIMS

1. An optical sensor for detecting a level of a liquid in a reservoir, said optical sensor comprising:

a display;

5 a light pipe optically connected to said display and extending to a level of interest in said reservoir, where said light pipe is formed from a material having a refractive index higher than air's refractive index and less than or equal to said liquid's refractive index; and

a light optically connected to said light pipe.

10 2. The optical sensor of claim 1, where said light pipe is a plastic tube.

3. The optical sensor of claim 1, where said light pipe is an optical fiber.

15 4. The optical sensor of claim 1, where said light pipe is a glass rod.

5. The optical sensor of claim 1, where said light pipe is a plastic rod.

6. The optical sensor of claim 1, where said light is a light emitting diode.

20 7. An optical sensor for detecting a level of a liquid in a reservoir, said optical sensor comprising:

a display;

a plurality of light pipes optically connected to said display and each of said plurality extending to a different level of interest in said reservoir, where said light pipe is formed from a material having a refractive index higher than air's refractive index and less than or equal to said liquid's refractive index; and

a light optically connected to each of said plurality of light pipes.

8. The optical sensor of claim 7, where said plurality of light pipes are plastic tubes.

9. The optical sensor of claim 7, where said plurality of light pipes are optical fibers.

10. The optical sensor of claim 7, where said plurality of light pipes are glass rods.

11. The optical sensor of claim 7, where said plurality of light pipes are plastic rods.

12. The optical sensor of claim 7, where said light is a light emitting diode.

13. An optical sensor for detecting a level of a liquid in a reservoir, said optical sensor comprising:

a display;

a bundle of optical fibers optically connected to said display where each optical fiber in said bundle extends to a different level of interest in said reservoir, and each

optical fiber is formed from a material having a refractive index higher than air's refractive index and less than or equal to said liquid's refractive index; and
a light optically connected to each optical fiber in said bundle.

- 5 14. The optical sensor of claim 13, where said light is a light emitting diode.